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(71) Applicant (*for all designated States except US*): WASHINGTON UNIVERSITY [US/US]; Campus Box 8013, 660 South Euclid, St. Louis, MO 63110 (US).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): BAO, Jianxin [US/US]; 2026 Midfield Lane, St. Louis, MO 63146 (US).

(74) Agents: GRANADOS, Patricia, D. et al.; Heller Ehrman White & McAuliffe LLP, Suite 300, 1666 K Street, NW, Washington, District of Columbia 20006-1228 (US).

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(54) Title: NEUREGULIN PROTEIN REGULATION OF SYNAPTIC PROTEINS

Human Nrg-ICD Polypeptide Sequence

SEQ	ID	NO:
KTKKQQRKKLHDLRLRQSLRSENNVMNMANGPHHPNPPPDNVQLVNQYVSKNIIS		1
SERVVERETETSFSTSHYTSTTHHSMTVTQTTPSHSWNGHTESILSESHSVLVSSSV		
ENSRHTSPTGPRGRLNGIGGPREGNSFLRHARETPDSYRDSPH		
SERYVSAMTTPARMSPVDFHTPTSPKSPPEMSPPVSSLTISIPSAVSPFMDDEER		
LLLVTPPRLREKYDNHLQQFNSFHNNPTHESNLPPSPLRIVEDEEYETTQEYEP		
QEPKKLNTSRRVKRTKPNGHISRRVEVSDTSSQSTSSSESETEDERTGEDTPFLSI		
QNPMATSLPAAAYRLAENRTNPANRFSTPEELQARLSSVIANQDPIAV		

(57) Abstract: Methods are provided for discovery of new lead pharmaceuticals useful for addressing diseases and other problems of hearing. Compounds that modulate PSD-95 induction are discovered via use of the Nrg-1/Eos signaling pathway. Cell based assay systems are particularly described that identify modulation of binding of Nrg-ICD with an Eos binding site. Other features include the promotion and/or inhibition of Nrg-ICD translocation across nuclear membranes.

WO 2004/087882 A2